

REMARKS

Claims 11-24, 26 and 28-32 are pending. Claims 11, 13, 17, 19, 23 and 29 are withdrawn from consideration.

Claims 12, 14-16, 18, 20-22, 24, 26, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galitzenstein et al. (US 2,488,082) in view of Vedage (US 5,444,170). Applicants respectfully traverse this rejection.

The present claims are limited to a process for preparing a hydrogenated alcohol, wherein the steps of the process are carried out continuously. The Examiner argues that a continuous process is an example of a cyclical process as taught by Galitzenstein et al., and that a continuous process is *prima facie* obvious over a non-continuous process in view of industrialization considerations.

Applicants urge that Galitzenstein et al. does not mention carrying out the process continuously. Galitzenstein et al., at column 2, line 43 to column 3, line 37 as cited by the Examiner, discloses that the process can be carried out cyclically, meaning that the different reactions of which the total process is composed are carried out in a certain order and that some of the intermediate products can be recycled to the starting reaction. This is particularly clear from column 3, lines 25 to 32: "*The potassium hydroxide is recovered as an aqueous solution and is used to prepare a further batch of potassium alcoholate utilizing the regenerated sparingly water-soluble alcohol and high-boiling inert organic liquid recovered during the isolation of the acetylenic alcohol, and so the cycle of the operations can be carried out afresh*" (emphasis added).

Just because certain products are recycled in a process, however, does not necessarily mean that the process is carried out continuously. In a continuous process, the starting materials

are fed in continuously (i.e. without interruption), with the products obtained also being withdrawn continuously. In a discontinuous process, the starting materials are not fed in a continuous manner, and the products are not recovered continuously. The process is, to the contrary, carried out in a batch-wise manner, in which a reaction vessel is charged with the starting materials and, upon the reaction being terminated, the products obtained are recovered from the vessel. These products can be used in further reactions being part of the total process, and products can also be recycled to the starting reaction. Galitzenstein et al. also mentions, in the aforementioned passage, that "...a further batch..." is prepared, showing that Galitzenstein is drawn to a discontinuous process.

Furthermore, applicants draw the Examiner's attention to the fact that not every industrial process is carried out continuously. There are many examples of processes which are not carried out continuously, such as the vinylation of various alcohols, or of a pyrrolidone to N-vinylpyrrolidone. Rather, these processes are carried out in a batch-wise manner. Additionally, it is known to the person skilled in the art that it is quite common to carry out the production of acetylenic alcohols in a batch-wise manner.

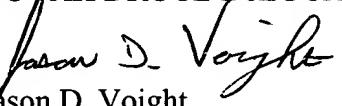
Furthermore, carrying out the process according to the present invention continuously yields unexpected results. In the Office action of October 5, 2004, the Examiner questions whether the results of Example 4 of the present application are better than that of Example 1 of Galitzenstein et al. Applicants further explain as follows.

According to Example 1 of Galitzenstein et al., 1144 g of 3-methyl-but-1-yn-3-ol are obtained. The total reaction time for the ethynylation is 5.25 h. The reaction is carried out in a 12 liter-vessel. The space-time-yield is 18.2 g/l·h.

According to Example 4 of the present application, 363 g/h dimethylhexynediol are obtained. The reaction is carried out in a 1 liter double-walled glass reactor, corresponding to a space-time-yield of 363 g/h¹, which is 20 times higher than according to Example 1 of Galitzenstein et al.

Even though Example 4 of the present application describes the preparation of unsaturated alcohols without any hydrogenation occurring, the advantages also apply with respect to a process for the preparation of saturated alcohols, which latter process comprises the preparation of an unsaturated alcohol.

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Respectfully submitted,
NOVAK DRUCE DeLUCA & QUIGG LLP

Jason D. Voight
Reg. No. 42,205

1300 Eye Street, N.W.
Suite 400 East
Washington, D.C. 20005
(202) 659-0100